No. 9300039

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Holden's Foundation Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN

'LH167'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 31st *day of* August *in the year of our Lord one thousand nine hundred and* ninety-three.

Attest:

Kenneth R. Evans

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

FORM APPROVED: OMB 0581-0055, Expires 1/31/91

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
HOLDEN'S FOUNDATION SEEDS, INC.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.
Ex2672

3. VARIETY NAME
LH167

4. ADDRESS *(street and no. or R.F.D. no., city, state, and ZIP)*
201 N. MAPLEWOOD AVENUE
P.O. BOX 839
WILLIAMSBURG, IA 52361

5. PHONE *(Include area code)*
(319)668-1100

FOR OFFICIAL USE ONLY

PVPO NUMBER

FILING
Date
Time ☐ A.M. ☐ P.M.

FEES RECEIVED
Filing and Examination Fee: $
Date
Certificate Fee: $
Date

6. GENUS AND SPECIES NAME
ZEA MAYS

7. FAMILY NAME *(Botanical)*
GRAMIEAE

8. CROP KIND NAME *(Common Name)*
CORN, FIELD

9. DATE OF DETERMINATION
NOVEMBER 1989

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
CORPORATION

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
IOWA

12. DATE OF INCORPORATION
1968

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
MARK ARMSTRONG
P.O. BOX 839
WILLIAMSBURG, IA 52361

PHONE *(Include area code)*:

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow INSTRUCTIONS on reverse)*

a. [X] Exhibit A, Origin and Breeding History of the Variety.
b. [X] Exhibit B, Novelty Statement.
c. [X] Exhibit C, Objective Description of Variety.
d. [X] Exhibit D, Additional Description of Variety.
e. [X] Exhibit E, Statement of the Basis of Applicant's Ownership.
f. [X] Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office _____.
g. [X] Filing and Examination Fee ($2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See section 83(a) of the Plant Variety Protection Act.)*
☐ YES *(If "YES," answer items 16 and 17 below)* [X] NO *(If "NO," skip to item 18 below)*

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ YES *(If "YES," through* ☐ Plant Variety Protection Act ☐ Patent Act. Give date: _____.)
[X] NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☐ YES (If "YES," give names of countries and dates)
[X] NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
Ronald Holden	PRESIDENT	
SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE

Origin and Breeding History of the Inbred

Exhibit A

LH167 was developed from the single cross LH57 x LH82 by selfing and using the pedigree system of plant breeding. Yield, stalk quality, root quality, disease tolerance, late plant greenness, late plant intactness, ear retention, pollen shedding ability, silking ability and corn borer tolerance were the criteria used to determine the rows from which ears were selected.

LH57 and LH82, the progenitors of LH167, are both proprietary field corn inbred lines of Holden's Foundation Seeds, Inc. In 1986, Holden's Foundation Seeds, Inc. applied for plant variety protection of LH57. LH57 was given certificate #8600129 on January 30, 1987. In 1985, Holden's Foundation Seeds, Inc. applied for plant variety protection of LH82. LH82 was given certificate #8500037 on July 26, 1985. On the following pages are a summary and description of the development of LH167. Also included are copies of pages from Holden's Foundation Seeds, Inc., nursery books. The rows associated with the development of LH167 have been highlighted.

Attached is a statement from the Director of Research, Donald G. Eggerling, of Holden's Foundation Seeds, Inc., stating that LH167 is stable, uniform and free of variance.

Uniformity Statement

Exhibit A

I have observed LH167 during the last four generations it has been increased: 1990 Iowa nursery row 18364;1991 Iowa nursery rows 9065-9074; 1991-92 Hawaii production field #20A7; and 1992 Iowa production Harrington-Gardner field. In each of these increases, seeds from the previous generation were planted. LH167 is stable and uniform. The inbred line is also free of variance from within the population.

Donald G. Eggerling
Director of Research
Holden's Foundation Seeds, Inc.

Uniformity Statement

Exhibit A

I have observed LH167 during the last four generations it has been increased: 1990 Iowa nursery row 18364;1991 Iowa nursery rows 9065-9074; 1991-92 Hawaii production field #20A7; and 1992 Iowa production Harrington-Gardner field. In each of these increases, seeds from the previous generation were planted. LH167 is stable and uniform. The inbred line is also free of variance from within the population.

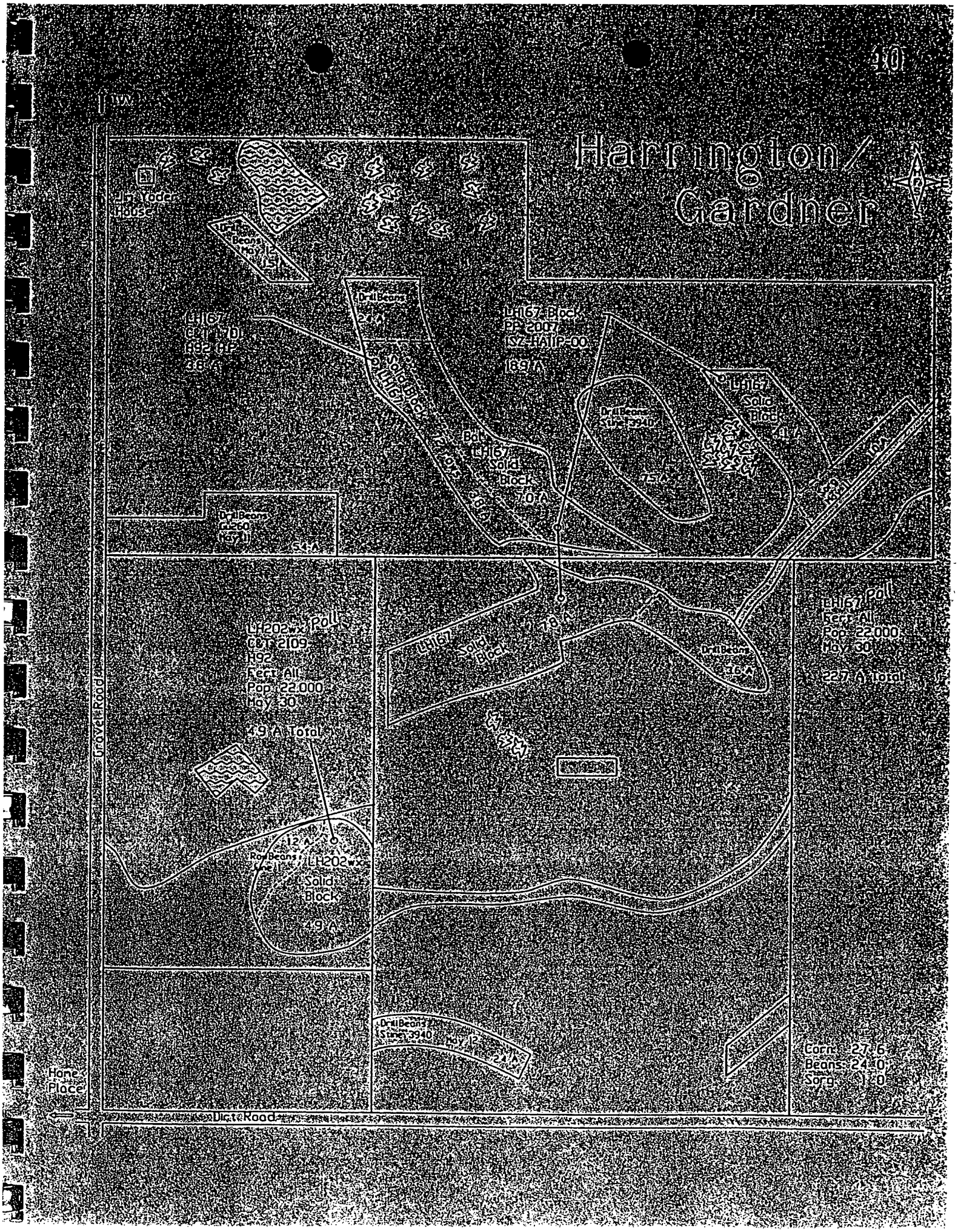
Richard J. Miller
Plant Breeder
Holden's Foundation Seeds, Inc.

ORIGIN & BREEDING HISTORY OF THE INBRED

LH167 = Ex2672 = LH57 x LH82

ROW/FIELD	PEDIGREE	LOCATION	YEAR
Harrington/Gardner	LH167	Iowa	1992
Field #20A7	LH167	Hawaii	1991-92
9065-9074	Ex2672	Iowa	1991
18364	LH57 x LH82 @7	Iowa	1990
19037	LH57 x LH82 @6	Iowa	1989
23643	LH57 x LH82 @5	Hawaii	1988-89
18708	LH57 x LH82 @4	Iowa	1988
4375	LH57 x LH82 @3	Hawaii	1987-88
2509	LH57 x LH82 @2	Iowa	1987
7944	LH57 x LH82 @1	Iowa	1986
19565	LH57 x LH82	Hawaii	1985-86
34786-34789 34793-34800	LH57 LH82	Iowa	1985

Harrington/ Gardner



EM 11/26

Type Production

Rows LH167 2.4A

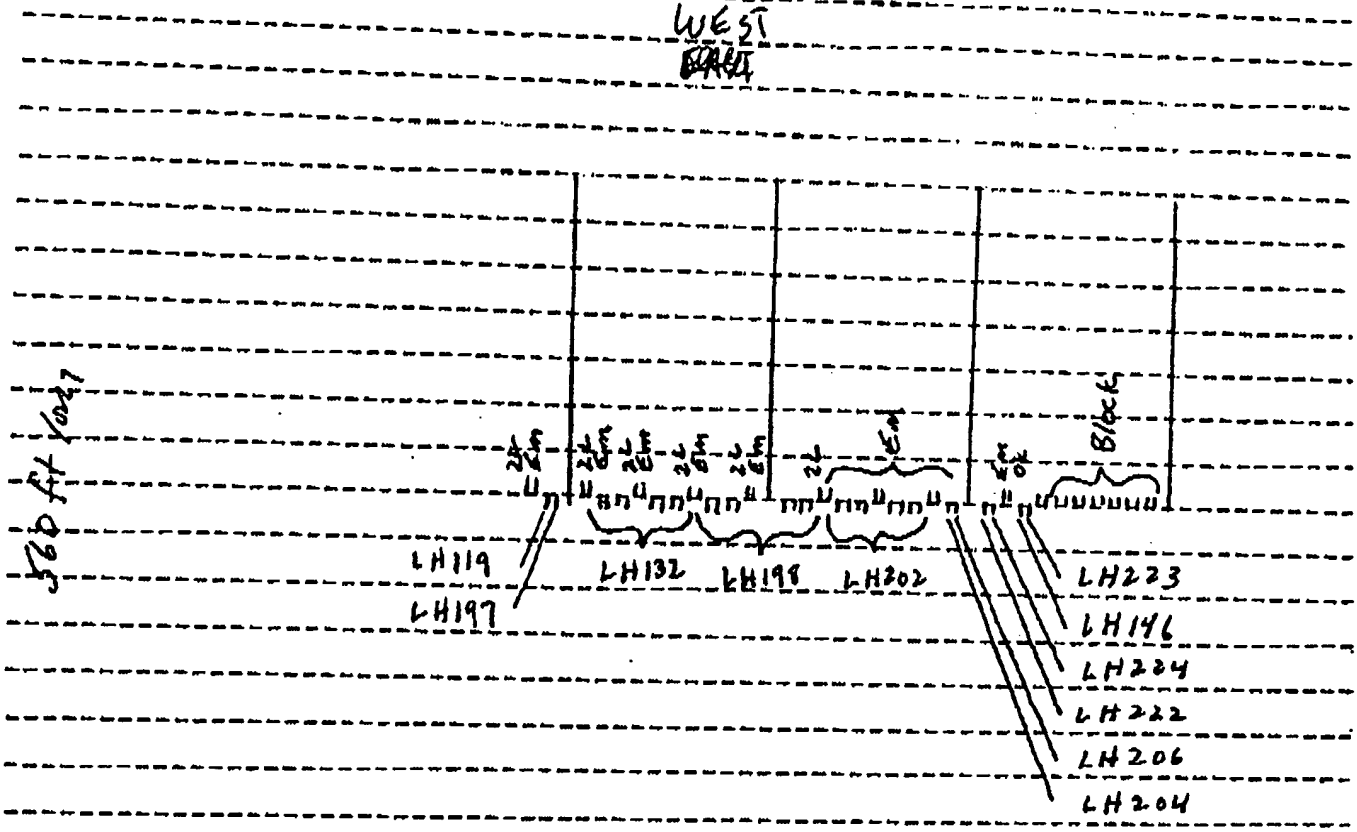
Location Row #20 A7

Planted 11/20/91

P llinate Resin

Pollinat End

Harvest



UPPER IMHOFF NURSERY BLOCK B

9024	Ex2668 18333-4 I90
9025	Ex2668 18333-5 I90
9026	Ex2668 18333-6 I90
9027	Ex2668 18333-7 I90
9028	Ex2668 18333-8 I90
9029	Ex2668 18333-9 I90
9030	Ex2668 18333-10 I90
9031	Ex2669 18335-1 I90
9032	Ex2669 18335-2 I90
9033	Ex2669 18335-3 I90
9034	Ex2669 18335-4 I90
9035	Ex2669 18335-5 I90
9036	Ex2669 18335-6 I90
9037	Ex2669 18335-7 I90
9038	Ex2669 18335-8 I90
9039	Ex2669 18335-9 I90
9040	Ex2669 18335-10 I90
9041	Ex2670 18340-1 I90
9042	Ex2670 18340-2 I90
9043	Ex2670 18340-3 I90
9044	Ex2670 18340-4 I90
9045	Ex2670 18340-5 I90
9046	Ex2670 18340-6 I90
9047	Ex2670 18340-7 I90
9048	Ex2670 18340-8 I90
9049	Ex2670 18340-9 I90
	2 Rows of Waterway
Border	LH197
Border	LH197
Border	LH197
Border	LH197
Border	LH197
Border	LH197
Border	LH197
Border	LH197
Border	LH197
Border	LH197
	15 Rows of Waterway

RANGE 20 W-E

	15 Rows of Waterway
Border	LH198
Border	LH198
Border	LH198
Border	LH198
Border	LH198
Border	LH198
Border	LH198
Border	LH198
Border	LH198
Border	LH198
	2 Rows of Waterway
9050	Ex2670 18340-10 I90
9051	LH82
9052	LH85
9053	LH74
9054	LH119
9055	Ex2671 18342-1 I90
9056	Ex2671 18342-2 I90
9057	Ex2671 18342-3 I90
9058	Ex2671 18342-4 I90
9059	Ex2671 18342-5 I90
9060	Ex2671 18342-6 I90
9061	Ex2671 18342-7 I90
9062	Ex2671 18342-8 I90
9063	Ex2671 18342-9 I90
9064	Ex2671 19136-1 H91
9065	Ex2672 18364-1 I90
9066	Ex2672 18364-2 I90
9067	Ex2672 18364-3 I90
9068	Ex2672 18364-4 I90
9069	Ex2672 18364-5 I90
9070	Ex2672 18364-6 I90
9071	Ex2672 18364-7 I90
9072	Ex2672 18364-8 I90
9073	Ex2672 18364-9 I90

UPPER IMHOFF NURSERY BLOCK B

9074	Ex2672 18364-10 I90
9075	Ex2673 18365-1 I90
9076	Ex2673 18365-2 I90
9077	Ex2673 18365-3 I90
9078	Ex2673 18365-4 I90
9079	Ex2673 18365-5 I90
9080	Ex2673 18365-6 I90
9081	Ex2673 18365-7 I90
9082	Ex2673 18365-8 I90
9083	Ex2673 18365-9 I90
9084	Ex2673 18365-10 I90
9085	Ex2674 18366-1 I90
9086	Ex2674 18366-2 I90
9087	Ex2674 18366-3 I90
9088	Ex2674 18366-4 I90
9089	Ex2674 18366-5 I90
9090	Ex2674 18366-6 I90
9091	Ex2674 18366-7 I90
9092	Ex2674 18366-8 I90
9093	Ex2674 18366-9 I90
9094	Ex2674 18366-10 I90
9095	LH82
9096	LH85
9097	LH74
	RANGE 21 W-E
	75 Rows of Waterway
	RANGE 22 E-W
9098	LH119
9099	Ex2675 18367-1 I90
9100	Ex2675 18367-2 I90
9101	Ex2675 18367-3 I90
9102	Ex2675 18367-4 I90
9103	Ex2675 18367-5 I90
9104	Ex2675 18367-6 I90
9105	Ex2675 18367-7 I90
9106	Ex2675 18367-8 I90
9107	Ex2675 18367-9 I90
9108	Ex2675 18367-10 I90
9109	Ex2676 18237-1 I90
9110	Ex2676 18237-2 I90
9111	Ex2676 18237-3 I90
9112	Ex2676 18237-4 I90
9113	Ex2676 18237-5 I90
9114	Ex2676 18237-6 I90
9115	Ex2676 18237-7 I90
9116	Ex2676 18237-8 I90
9117	Ex2676 18237-9 I90
9118	Ex2676 18237-10 I90
9119	Ex2677 18243-1 I90
9120	Ex2677 18243-2 I90
9121	Ex2677 18243-3 I90
9122	Ex2677 18243-4 I90
9123	Ex2677 18243-5 I90
9124	Ex2677 18243-6 I90
9125	Ex2677 18243-7 I90
9126	Ex2677 18243-8 I90
9127	Ex2677 18243-9 I90
9128	Ex2677 18243-10 I90
9129	Ex2678 18248-1 I90
9130	Ex2678 18248-2 I90
9131	Ex2678 18248-3 I90
9132	Ex2678 18248-4 I90
9133	Ex2678 18248-5 I90
9134	Ex2678 18248-6 I90
9135	Ex2678 18248-7 I90
9136	Ex2678 18248-8 I90
9137	Ex2678 18248-9 I90
9138	Ex2678 18248-10 I90
9139	Ex2679 18250-1 I90
9140	Ex2679 18250-2 I90
9141	Ex2679 18250-3 I90
9142	Ex2679 18250-4 I90
9143	Ex2679 18250-5 I90

SOUTH JONES NURSERY

18362	LH57	×	LH82	RM@7	7944-75-1-3-1-2-1	19025	I89	
18363	LH57	×	LH82	RM@7	7944-75-1-3-1-3-1	19026	I89	
18364	LH57	×	LH82	RM@7	7944-86-4-1-1-1-1	19037	I89	
18365	LH57	×	LH82	RM@7	7944-86-4-1-1-2-1	19038	I89	
18366	LH57	×	LH82	RM@7	7944-86-4-1-1-2-2	19038	I89	
18367	LH57	×	LH82	RM@7	7944-86-4-1-1-3-1	19039	I89	
18368	LH57	×	LH82	RM@7	7944-86-4-1-2-3-1	19042	I89	
18369	ND246	×	LH93(3)	RM@6	3377-1-1-2-2-1-1	15151	I89	
18370	ND246	×	LH93(3)	RM@6	3377-1-1-2-2-1-2	15152	I89	
18371	ND246	×	LH93(3)	RM@6	3377-1-1-2-2-1-3	15153	I89	
18372	ND246	×	LH93(3)	RM@6	3377-1-1-2-2-2-1	15154	I89	
18373	ND246	×	LH93(3)	RM@6	3377-1-1-2-2-2-2	15155	I89	
18374	ND246	×	LH93(3)	RM@6	3377-1-1-2-2-2-3	15156	I89	
18375	ND246	×	LH93(3)	RM@6	3377-2-3-1-1-1-1	15186	I89	
18376	ND246	×	LH93(3)	RM@6	3377-2-3-1-1-1-2	15187	I89	
18377	ND246	×	LH93(3)	RM@6	3377-2-3-1-1-1-3	15188	I89	
18378	ND246	×	LH93(3)	RM@6	3377-2-3-1-1-3-1	15192	I89	
18379	ND246	×	LH93(3)	RM@6	3377-2-3-1-1-3-2	15193	I89	
18380	ND246	×	LH93(3)	RM@6	3377-2-3-1-1-3-3	15194	I89	
18381	ND246	×	LH93(3)	RM@6	3377-6-1-2-2-1-1	15236	I89	
18382	ND246	×	LH93(3)	RM@6	3377-6-1-2-2-1-2	15237	I89	
18383	ND246	×	LH93(3)	RM@6	3377-10-1-1-2-1-1	15244	I89	
18384	ND246	×	LH93(3)	RM@6	3377-10-1-1-2-1-2	15245	I89	
18385	ND246	×	LH93(3)	RM@6	3377-10-2-2-1-2-1	15271	I89	
18386	ND246	×	LH93(3)	RM@6	3377-10-2-2-1-2-2	15272	I89	
18387	ND246	×	LH93(3)	RM@6	3377-10-2-2-1-2-3	15273	I89	
18388	ND246	×	LH93(3)	RM@6	3377-14-1-4-1-1-1	15280	I89	
18389	ND246	×	LH93(3)	RM@6	3377-14-1-4-1-1-2	15281	I89	
18390	ND246	×	LH93(3)	RM@6	3377-14-1-4-1-1-3	15282	I89	
18391	ND246	×	LH93(3)	RM@6	3377-22-1-1-3-3-1	15293	I89	
18392	ND246	×	LH93(3)	RM@6	3377-22-1-1-3-3-2	15294	I89	
18393	ND246	×	LH93(3)	RM@6	3377-22-1-1-3-3-3	15295	I89	
18394	ND246	×	LH93(3)	RM@6	3377-25-1-3-2-2-1	15320	I89	
18395	ND246	×	LH93(3)	RM@6	3377-25-1-3-2-2-2	15321	I89	
18396	ND246	×	LH93(3)	RM@6	3377-25-1-3-2-2-3	15322	I89	
18397	ND246	×	LH93(3)	RM@6	3377-25-4-1-3-1-1	15338	I89	
18398	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-1-1	15341	I89	
18399	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-1-2	15342	I89	
Border	LH82							

RANGE 10 N-S

Border	LH82							
18400	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-1-3	15343	I89	
18401	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-2-1	15344	I89	
18402	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-2-2	15345	I89	
18403	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-2-3	15346	I89	
18404	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-3-1	15347	I89	
18405	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-3-2	15348	I89	
18406	ND246	×	LH93(3)	RM@6	3377-25-4-2-2-3-3	15349	I89	
18407	ND246	×	LH93(3)	RM@6	3377-25-4-2-3-1-1	15350	I89	
18408	LH145							
18409	LH85							
18410	LH82							
18411	ND246	×	LH93(3)	RM@6	3377-25-4-2-3-1-2	15351	I89	
18412	ND246	×	LH93(3)	RM@6	3377-25-4-2-3-1-3	15352	I89	
18413	ND246	×	LH93(3)	RM@6	3377-37-1-1-1-1-1	15353	I89	
18414	ND246	×	LH93(3)	RM@6	3377-37-1-1-1-1-2	15354	I89	
18415	ND246	×	LH93(3)	RM@6	3377-37-1-1-1-1-3	15355	I89	
18416	ND246	×	LH93(3)	RM@6	3377-37-1-2-1-1-1	15362	I89	
18417	ND246	×	LH93(3)	RM@6	3377-37-1-2-1-1-2	15363	I89	
18418	ND246	×	LH93(3)	RM@6	3377-37-1-2-1-1-3	15364	I89	
18419	ND246	×	LH93(3)	RM@6	3377-67-1-1-2-2-1	15370	I89	
18420	ND246	×	LH93(3)	RM@6	3377-67-1-1-2-2-3	15372	I89	
18421	ND246	×	LH93(3)	RM@6	3377-67-1-1-3-2-3	15378	I89	
18422	ND246	×	LH93(3)	RM@6	3377-67-2-2-1-1-2	15380	I89	
18423	ND246	×	LH93(3)	RM@6	3377-67-2-3-1-1-1	15382	I89	
18424	ND246	×	LH93(3)	RM@6	3377-109-2-1-3-1-1	15387	I89	
18425	ND246	×	LH93(3)	RM@6	3377-109-2-1-3-1-2	15388	I89	
18426	ND246	×	LH93(3)	RM@6	3377-109-2-1-3-2-1	15390	I89	
18427	ND246	×	LH93(3)	RM@6	3377-109-2-1-3-2-2	15391	I89	
18428	ND246	×	LH93(3)	RM@6	3377-109-2-1-3-2-3	15392	I89	
18429	ND246	×	LH93(3)	RM@6	3377-109-2-2-2-1-1	15393	I89	
18430	ND246	×	LH93(3)	RM@6	3377-109-2-2-2-1-2	15394	I89	
18431	ND246	×	LH93(3)	RM@6	3377-109-2-2-2-1-3	15395	I89	
18432	ND246	×	LH93(3)	RM@6	3377-109-2-2-2-2-2	15397	I89	
18433	ND246	×	LH93(3)	RM@6	3377-109-2-2-2-2-3	15398	I89	

ECKHOLM NURSERY

18999	LH57 x LH82 RM86 7944-71-1-3-3-1	23615 H89
19000	LH57 x LH82 RM86 7944-71-1-3-3-2	23615 H89
19001	LH57 x LH82 RM86 7944-71-1-3-3-3	23615 H89
19002	LH57 x LH82 RM86 7944-71-4-2-1-1	23617 H89
19003	LH57 x LH82 RM86 7944-71-4-2-1-2	23617 H89
19004	LH57 x LH82 RM86 7944-71-4-2-1-3	23617 H89
19005	LH57 x LH82 RM86 7944-72-2-2-1-1	23619 H89
19006	LH57 x LH82 RM86 7944-72-2-2-1-2	23619 H89
19007	LH82	
19008	LH59	
19009	LH57 x LH82 RM86 7944-72-2-2-1-3	23619 H89
19010	LH57 x LH82 RM86 7944-72-2-2-2-1	23621 H89
19011	LH57 x LH82 RM86 7944-72-2-2-2-2	23621 H89
19012	LH57 x LH82 RM86 7944-72-2-2-2-3	23621 H89
19013	LH57 x LH82 RM86 7944-72-2-3-1-1	23623 H89
19014	LH57 x LH82 RM86 7944-72-2-3-1-2	23623 H89
19015	LH57 x LH82 RM86 7944-72-2-3-1-3	23623 H89
19016	LH57 x LH82 RM86 7944-72-3-3-1-1	23625 H89
19017	LH57 x LH82 RM86 7944-72-3-3-1-2	23625 H89
19018	LH57 x LH82 RM86 7944-72-3-3-1-3	23625 H89
19019	LH57 x LH82 RM86 7944-72-3-3-2-1	23627 H89
19020	LH57 x LH82 RM86 7944-72-3-3-2-2	23627 H89
19021	LH57 x LH82 RM86 7944-72-3-3-2-3	23627 H89
19022	LH57 x LH82 RM86 7944-72-3-3-3-1	23629 H89
19023	LH57 x LH82 RM86 7944-72-3-3-3-2	23629 H89
19024	LH57 x LH82 RM86 7944-75-1-3-1-1	23631 H89
19025	LH57 x LH82 RM86 7944-75-1-3-1-2	23631 H89
19026	LH57 x LH82 RM86 7944-75-1-3-1-3	23631 H89
19027	LH57 x LH82 RM86 7944-75-1-3-2-1	23633 H89
19028	LH57 x LH82 RM86 7944-75-1-3-2-2	23633 H89
19029	LH57 x LH82 RM86 7944-75-1-3-2-3	23633 H89
19030	LH57 x LH82 RM86 7944-75-1-3-3-1	23635 H89
19031	LH57 x LH82 RM86 7944-75-1-3-3-2	23635 H89
19032	LH57 x LH82 RM86 7944-75-1-3-3-3	23635 H89
19033	LH57 x LH82 RM86 7944-86-3-2-1-1	23637 H89
19034	LH57 x LH82 RM86 7944-86-3-2-1-2	23637 H89
19035	LH57 x LH82 RM86 7944-86-3-2-2-1	23639 H89
19036	LH57 x LH82 RM86 7944-86-3-2-3-1	23641 H89
19037	LH57 x LH82 RM86 7944-86-4-1-1-1	23643 H89
19038	LH57 x LH82 RM86 7944-86-4-1-1-2	23643 H89
19039	LH57 x LH82 RM86 7944-86-4-1-1-3	23643 H89
19040	LH57 x LH82 RM86 7944-86-4-1-2-1	23645 H89
19041	LH57 x LH82 RM86 7944-86-4-1-2-2	23645 H89
19042	LH57 x LH82 RM86 7944-86-4-1-2-3	23645 H89
19043	LH57 x LH82 RM86 7944-86-4-1-3-1	23647 H89
19044	LH57 x LH82 RM86 7944-86-4-1-3-2	23647 H89
19045	LH57 x LH82 RM86 7944-86-4-1-3-3	23647 H89
19046	LH57 x LH82 RM86 7944-88-1-1-1-1	23649 H89
19047	LH57 x LH82 RM86 7944-88-1-1-1-2	23649 H89
19048	LH57 x LH82 RM86 7944-88-1-1-1-3	23649 H89
19049	LH57 x LH82 RM86 7944-92-1-1-1-1	23651 H89
19050	LH57 x LH82 RM86 7944-92-1-1-1-2	23651 H89
19051	LH57 x LH82 RM86 7944-92-1-1-1-3	23651 H89
19052	LH57 x LH82 RM86 7944-92-1-1-2-1	23653 H89
19053	LH57 x LH82 RM86 7944-92-1-1-2-2	23653 H89
19054	LH57 x LH82 RM86 7944-92-1-1-2-3	23653 H89
19055	LH57 x LH82 RM86 7944-92-1-1-3-1	23655 H89
19056	LH57 x LH82 RM86 7944-92-1-1-3-2	23655 H89
19057	LH57 x LH82 RM86 7944-92-1-1-3-3	23655 H89
19058	LH57 x LH82 RM86 7944-92-1-2-1-1	23657 H89
19059	LH57 x LH82 RM86 7944-92-1-2-1-2	23657 H89
19060	LH57 x LH82 RM86 7944-92-1-2-1-3	23657 H89
19061	LH57 x LH82 RM86 7944-92-1-2-2-1	23659 H89
19062	LH57 x LH82 RM86 7944-92-1-2-2-2	23659 H89
19063	LH57 x LH82 RM86 7944-92-1-2-2-3	23659 H89
19064	LH57 x LH82 RM86 7944-92-1-2-3-1	23661 H89
19065	LH57 x LH82 RM86 7944-92-1-2-3-2	23661 H89
19066	LH57 x LH82 RM86 7944-92-1-2-3-3	23661 H89
19067	LH57 x LH82 RM86 7944-92-1-3-1-1	23663 H89
19068	LH57 x LH82 RM86 7944-92-1-3-1-2	23663 H89
Border	LH82	
Border	LH61	
Border	LH61	

RANGE 21 S-N

Border	LH65

SHORT (88)

23597	LH57 x LH82 RM@5 7944-47-2-3-2 18617 I88	*EM
23598	B73 x LHE136	
23599	LH57 x LH82 RM@5 7944-54-3-1-1 18629 I88	*EM
23600	B73 x LHE136	
23601	LH57 x LH82 RM@5 7944-54-3-1-2 18629 I88	*EM
23602	B73 x LHE136	
23603	LH57 x LH82 RM@5 7944-57-2-3-1 18639 I88	*EM
23604	B73 x LHE136	
23605	LH57 x LH82 RM@5 7944-57-2-3-2 18639 I88	*EM
23606	B73 x LHE136	
23607	LH57 x LH82 RM@5 7944-71-1-2-1 18666 I88	*EM
23608	B73 x LHE136	
23609	LH57	*EM
23610	B73 x LHE136	
23611	LH57 x LH82 RM@5 7944-71-1-3-1 18667 I88	*EM
23612	B73 x LHE136	
23613	LH57 x LH82 RM@5 7944-71-1-3-2 18667 I88	*EM
23614	B73 x LHE136	

RANGE 51 W-E

23615	LH57 x LH82 RM@5 7944-71-1-3-3 18667 I88	*EM
23616	B73 x LHE136	
23617	LH57 x LH82 RM@5 7944-71-4-2-1 18673 I88	*EM
23618	B73 x LHE136	
23619	LH57 x LH82 RM@5 7944-72-2-2-1 18678 I88	*EM
23620	B73 x LHE136	
23621	LH57 x LH82 RM@5 7944-72-2-2-2 18678 I88	*EM
23622	B73 x LHE136	
23623	LH57 x LH82 RM@5 7944-72-2-3-1 18679 I88	*EM
23624	B73 x LHE136	
23625	LH57 x LH82 RM@5 7944-72-3-3-1 18682 I88	*EM
23626	B73 x LHE136	
23627	LH57 x LH82 RM@5 7944-72-3-3-2 18682 I88	*EM
23628	B73 x LHE136	
23629	LH57 x LH82 RM@5 7944-72-3-3-3 18682 I88	*EM
23630	B73 x LHE136	
23631	LH57 x LH82 RM@5 7944-75-1-3-1 18686 I88	*EM
23632	B73 x LHE136	
23633	LH57 x LH82 RM@5 7944-75-1-3-2 18686 I88	*EM
23634	B73 x LHE136	
23635	LH57 x LH82 RM@5 7944-75-1-3-3 18686 I88	*EM
23636	B73 x LHE136	
23637	LH57 x LH82 RM@5 7944-86-3-2-1 18707 I88	*EM
23638	B73 x LHE136	
23639	LH57 x LH82 RM@5 7944-86-3-2-2 18707 I88	*EM
23640	B73 x LHE136	
23641	LH57 x LH82 RM@5 7944-86-3-2-3 18707 I88	*EM
23642	B73 x LHE136	
23643	LH57 x LH82 RM@5 7944-86-4-1-1 18708 I88	*EM
23644	B73 x LHE136	

RANGE 52 E-W

23645	LH57 x LH82 RM@5 7944-86-4-1-2 18708 I88	*EM
23646	B73 x LHE136	
23647	LH57 x LH82 RM@5 7944-86-4-1-3 18708 I88	*EM
23648	B73 x LHE136	
23649	LH57 x LH82 RM@5 7944-88-1-1-1 18711 I88	*EM
23650	B73 x LHE136	
23651	LH57 x LH82 RM@5 7944-92-1-1-1 18712 I88	*EM
23652	B73 x LHE136	
23653	LH57 x LH82 RM@5 7944-92-1-1-2 18712 I88	*EM
23654	B73 x LHE136	
23655	LH57 x LH82 RM@5 7944-92-1-1-3 18712 I88	*EM
23656	B73 x LHE136	
23657	LH57 x LH82 RM@5 7944-92-1-2-1 18713 I88	*EM
23658	B73 x LHE136	
23659	LH57 x LH82 RM@5 7944-92-1-2-2 18713 I88	*EM
23660	B73 x LHE136	
23661	LH57 x LH82 RM@5 7944-92-1-2-3 18713 I88	*EM
23662	B73 x LHE136	
23663	LH57 x LH82 RM@5 7944-92-1-3-1 18714 I88	*EM
23664	B73 x LHE136	
23665	LH57 x LH82 RM@5 7944-92-1-3-2 18714 I88	*EM
23666	B73 x LHE136	
23667	B73 x LHE136	

E[redacted]LM NURSERY

18651	LH57 x LH82 RM84 7944-68-2-1 4329 H88
18652	LH57 x LH82 RM84 7944-68-2-2 4329 H88
18653	LH57 x LH82 RM84 7944-70-1-1 4331 H88
18654	LH57 x LH82 RM84 7944-70-1-2 4331 H88
18655	LH57 x LH82 RM84 7944-70-2-1 4333 H88
18656	LH57 x LH82 RM84 7944-70-2-2 4333 H88
18657	LH57 x LH82 RM84 7944-70-2-3 4333 H88
18658	LH57 x LH82 RM84 7944-70-3-1 4335 H88
18659	LH57 x LH82 RM84 7944-70-3-2 4335 H88
18660	LH57 x LH82 RM84 7944-70-3-3 4335 H88
18661	LH57 x LH82 RM84 7944-70-4-2 4337 H88
18662	LH57 x LH82 RM84 7944-70-5-1 4339 H88
18663	LH57 x LH82 RM84 7944-70-5-2 4339 H88
Border	LH202
Border	LH202

RANGE 13 S-N

Border	LH202
Border	LH202
18664	LH57 x LH82 RM84 7944-70-5-3 4339 H88
18665	LH57 x LH82 RM84 7944-71-1-1 4343 H88
18666	LH57 x LH82 RM84 7944-71-1-2 4343 H88
18667	LH57 x LH82 RM84 7944-71-1-3 4343 H88
18668	LH57 x LH82 RM84 7944-71-2-1 4345 H88
18669	LH57 x LH82 RM84 7944-71-3-1 4347 H88
18670	LH57 x LH82 RM84 7944-71-3-2 4347 H88
18671	LH57 x LH82 RM84 7944-71-3-3 4347 H88
18672	LH57 x LH82 RM84 7944-71-4-1 4349 H88
18673	LH57 x LH82 RM84 7944-71-4-2 4349 H88
18674	LH57 x LH82 RM84 7944-71-4-3 4349 H88
18675	LH57 x LH82 RM84 7944-72-1-1 4351 H88
18676	LH57 x LH82 RM84 7944-72-1-2 4351 H88
18677	LH57 x LH82 RM84 7944-72-2-1 4353 H88
18678	LH57 x LH82 RM84 7944-72-2-2 4353 H88
18679	LH57 x LH82 RM84 7944-72-2-3 4353 H88
18680	LH57 x LH82 RM84 7944-72-3-1 4355 H88
18681	LH57 x LH82 RM84 7944-72-3-2 4355 H88
18682	LH57 x LH82 RM84 7944-72-3-3 4355 H88
18683	LH57-1 4341 H88
18684	LH57 x LH82 RM84 7944-75-1-1 4357 H88
18685	LH57 x LH82 RM84 7944-75-1-2 4357 H88
18686	LH57 x LH82 RM84 7944-75-1-3 4357 H88
18687	LH57 x LH82 RM84 7944-75-2-1 4359 H88
18688	LH57 x LH82 RM84 7944-75-2-2 4359 H88
18689	LH57 x LH82 RM84 7944-75-2-3 4359 H88
18690	LH57 x LH82 RM84 7944-78-1-1 4361 H88
18691	LH57 x LH82 RM84 7944-78-1-2 4361 H88
18692	LH57 x LH82 RM84 7944-78-1-3 4361 H88
18693	LH57 x LH82 RM84 7944-78-2-1 4363 H88
18694	LH57 x LH82 RM84 7944-81-1-1 4365 H88
18695	LH57 x LH82 RM84 7944-81-1-2 4365 H88
18696	LH57 x LH82 RM84 7944-81-1-3 4365 H88
18697	LH57 x LH82 RM84 7944-81-2-1 4367 H88
18698	LH57 x LH82 RM84 7944-81-2-2 4367 H88
18699	LH57 x LH82 RM84 7944-81-2-3 4367 H88
18700	LH57 x LH82 RM84 7944-86-1-1 4369 H88
18701	LH57 x LH82 RM84 7944-86-1-2 4369 H88
18702	LH57 x LH82 RM84 7944-86-1-3 4369 H88
18703	LH57 x LH82 RM84 7944-86-2-1 4371 H88
18704	LH57 x LH82 RM84 7944-86-2-2 4371 H88
18705	LH57 x LH82 RM84 7944-86-2-3 4371 H88
18706	LH57 x LH82 RM84 7944-86-3-1 4373 H88
18707	LH57 x LH82 RM84 7944-86-3-2 4373 H88
18708	LH57 x LH82 RM84 7944-86-4-1 4375 H88
18709	LH57 x LH82 RM84 7944-86-4-2 4375 H88
18710	LH57 x LH82 RM84 7944-86-4-3 4375 H88
18711	LH57 x LH82 RM84 7944-88-1-1 4377 H88
18712	LH57 x LH82 RM84 7944-92-1-1 4379 H88
18713	LH57 x LH82 RM84 7944-92-1-2 4379 H88
18714	LH57 x LH82 RM84 7944-92-1-3 4379 H88
18715	LH57 x LH82 RM84 7944-92-2-1 4381 H88
18716	LH57 x LH82 RM84 7944-92-2-2 4381 H88
18717	LH57 x LH82 RM84 7944-92-3-1 4383 H88
18718	LH57 x LH82 RM84 7944-92-3-2 4383 H88
18719	LH57 x LH82 RM84 7944-92-3-3 4383 H88
18720	LH202

4326	B73 x LHE136	
4327	LH57 x LH82 RM83 7944-68-1 2491 I87	#1L
4328	B73 x LHE136	
4329	LH57 x LH82 RM83 7944-68-2 2491 I87	#1L
4330	B73 x LHE136	
4331	LH57 x LH82 RM83 7944-70-1 2493 I87	#1L
4332	B73 x LHE136	
4333	LH57 x LH82 RM83 7944-70-2 2493 I87	#1L
4334	B73 x LHE136	
4335	LH57 x LH82 RM83 7944-70-3 2493 I87	#1L
4336	B73 x LHE136	

RANGE 42 W-E

4337	LH57 x LH82 RM83 7944-70-4 2493 I87	#1L
4338	B73 x LHE136	
4339	LH57 x LH82 RM83 7944-70-5 2493 I87	#1L
4340	B73 x LHE136	
4341	LH57	#1L
4342	B73 x LHE136	
4343	LH57 x LH82 RM83 7944-71-1 2494 I87	#1L
4344	B73 x LHE136	
4345	LH57 x LH82 RM83 7944-71-2 2494 I87	#1L
4346	B73 x LHE136	
4347	LH57 x LH82 RM83 7944-71-3 2494 I87	#1L
4348	B73 x LHE136	
4349	LH57 x LH82 RM83 7944-71-4 2494 I87	#1L
4350	B73 x LHE136	
4351	LH57 x LH82 RM83 7944-72-1 2495 I87	#1L
4352	B73 x LHE136	
4353	LH57 x LH82 RM83 7944-72-2 2495 I87	#1L
4354	B73 x LHE136	
4355	LH57 x LH82 RM83 7944-72-3 2495 I87	#1L
4356	B73 x LHE136	

RANGE 43 E-W

4357	LH57 x LH82 RM83 7944-75-1 2498 I87	#1L
4358	B73 x LHE136	
4359	LH57 x LH82 RM83 7944-75-2 2498 I87	#1L
4360	B73 x LHE136	
4361	LH57 x LH82 RM83 7944-78-1 2501 I87	#1L
4362	B73 x LHE136	
4363	LH57 x LH82 RM83 7944-78-2 2501 I87	#1L
4364	B73 x LHE136	
4365	LH57 x LH82 RM83 7944-81-1 2504 I87	#1L
4366	B73 x LHE136	
4367	LH57 x LH82 RM83 7944-81-2 2504 I87	#1L
4368	B73 x LHE136	
4369	LH57 x LH82 RM83 7944-86-1 2509 I87	#1L
4370	B73 x LHE136	
4371	LH57 x LH82 RM83 7944-86-2 2509 I87	#1L
4372	B73 x LHE136	
4373	LH57 x LH82 RM83 7944-86-3 2509 I87	#1L
4374	B73 x LHE136	
4375	LH57 x LH82 RM83 7944-86-4 2509 I87	#1L
4376	B73 x LHE136	

RANGE 44 W-E

4377	LH57 x LH82 RM83 7944-88-1 2511 I87	#1L
4378	B73 x LHE136	
4379	LH57 x LH82 RM83 7944-92-1 2515 I87	#1L
4380	B73 x LHE136	
4381	LH57 x LH82 RM83 7944-92-2 2515 I87	#1L
4382	B73 x LHE136	
4383	LH57 x LH82 RM83 7944-92-3 2515 I87	#1L
4384	B73 x LHE136	
4385	LH82	#1L
4386	B73 x LHE136	
4387	B73 x LHE136	
4388	B73 x LHE136	
4389	B73 x LHE136	

WEST IMHOFF NURSERY BLOCK C

2461	LH57 x LH82 RH82 7944-39 I86	SR=2L
2462	LH57 x LH82 RH82 7944-40 I86	SR=2L
2463	LH57 x LH82 RH82 7944-41 I86	SR=2L
2464	LH57 x LH82 RH82 7944-42 I86	SR=2L
2465	LH57 x LH82 RH82 7944-43 I86	SR=2L
2466	LH57 x LH82 RH82 7944-44 I86	SR=2L
Border	B73	SR=2L

RANGE 5 S-N

Border	B73	SR=2L
2467	LH57 x LH82 RH82 7944-45 I86	SR=2L
2468	LH57 x LH82 RH82 7944-46 I86	SR=2L
2469	LH57 x LH82 RH82 7944-47 I86	SR=2L
2470	LH57 x LH82 RH82 7944-48 I86	SR=2L
2471	LH57 x LH82 RH82 7944-49 I86	SR=2L
2472	LH57 x LH82 RH82 7944-50 I86	SR=2L
2473	LH57 x LH82 RH82 7944-51 I86	SR=2L
2474	LH57 x LH82 RH82 7944-52 I86	SR=2L
2475	LH57 x LH82 RH82 7944-53 I86	SR=2L
2476	LH57 x LH82 RH82 7944-54 I86	SR=2L
2477	LH57 x LH82 RH82 7944-55 I86	SR=2L
2478	LH57 x LH82 RH82 7944-56 I86	SR=2L
2479	LH57 x LH82 RH82 7944-57 I86	SR=2L
2480	LH57 x LH82 RH82 7944-58 I86	SR=2L
2481	LH57 x LH82 RH82 7944-59 I86	SR=2L
2482	LH57 x LH82 RH82 7944-60 I86	SR=2L
2483	LH82	SR=2L
2484	LH57 x LH82 RH82 7944-61 I86	SR=2L
2485	LH57 x LH82 RH82 7944-62 I86	SR=2L
2486	LH57 x LH82 RH82 7944-63 I86	SR=2L
2487	LH57 x LH82 RH82 7944-64 I86	SR=2L
2488	LH57 x LH82 RH82 7944-65 I86	SR=2L
2489	LH57 x LH82 RH82 7944-66 I86	SR=2L
2490	LH57 x LH82 RH82 7944-67 I86	SR=2L
2491	LH57 x LH82 RH82 7944-68 I86	SR=2L
2492	LH57 x LH82 RH82 7944-69 I86	SR=2L
2493	LH57 x LH82 RH82 7944-70 I86	SR=2L
2494	LH57 x LH82 RH82 7944-71 I86	SR=2L
2495	LH57 x LH82 RH82 7944-72 I86	SR=2L
2496	LH57 x LH82 RH82 7944-73 I86	SR=2L
2497	LH57 x LH82 RH82 7944-74 I86	SR=2L
2498	LH57 x LH82 RH82 7944-75 I86	SR=2L
2499	LH57 x LH82 RH82 7944-76 I86	SR=2L
2500	LH57 x LH82 RH82 7944-77 I86	SR=2L
2501	LH57 x LH82 RH82 7944-78 I86	SR=2L
2502	LH57 x LH82 RH82 7944-79 I86	SR=2L
2503	LH57 x LH82 RH82 7944-80 I86	SR=2L
2504	LH57 x LH82 RH82 7944-81 I86	SR=2L
2505	LH57 x LH82 RH82 7944-82 I86	SR=2L
2506	LH57 x LH82 RH82 7944-83 I86	SR=2L
2507	LH57 x LH82 RH82 7944-84 I86	SR=2L
2508	LH57 x LH82 RH82 7944-85 I86	SR=2L
2509	LH57 x LH82 RH82 7944-86 I86	SR=2L
2510	LH57 x LH82 RH82 7944-87 I86	SR=2L
2511	LH57 x LH82 RH82 7944-88 I86	SR=2L
2512	LH57 x LH82 RH82 7944-89 I86	SR=2L
2513	LH57 x LH82 RH82 7944-90 I86	SR=2L
2514	LH57 x LH82 RH82 7944-91 I86	SR=2L
2515	LH57 x LH82 RH82 7944-92 I86	SR=2L
2516	LH57 x LH82 RH82 7944-93 I86	SR=2L
2517	B73	
2518	B73	
2519	LH91 x LH39 RH84 28893-1-1-1 4540 H87	
2520	LH91 x LH39 RH84 28893-1-1-2 4540 H87	
2521	LH91 x LH39 RH84 28893-1-2-1 4542 H87	

RANGE 6 N-S

2522	LH91 x LH39 RH84 28893-1-2-2 4542 H87	
2523	LH91 x LH39 RH84 28893-1-2-3 4542 H87	
2524	LH91 x LH39 RH84 28893-1-3-1 4544 H87	
2525	LH91 x LH39 RH84 28893-1-3-2 4544 H87	
2526	LH91 x LH39 RH84 28893-1-3-3 4544 H87	
2527	LH91 x LH39 RH84 28893-2-1-1 4546 H87	
2528	LH91 x LH39 RH84 28893-2-1-2 4546 H87	
2529	LH91 x LH39 RH84 28893-2-2-1 4548 H87	

SEWER IHHOFF NURSERY

7878	LH54 x LH52 RM#1 19571 H86
7879	LH54 x LH52 RM#1 19571 H86
7880	LH54 x LH52 RM#1 19571 H86
7881	LH54 x LH52 RM#1 19571 H86
7882	LH54 x LH52 RM#1 19571 H86
7883	P3737 x LH93 RM#1 19569 H86
7884	P3737 x LH93 RM#1 19569 H86
7885	P3737 x LH93 RM#1 19569 H86
7886	P3737 x LH93 RM#1 19569 H86
7887	P3737 x LH93 RM#1 19569 H86
7888	P3737 x LH93 RM#1 19569 H86
7889	P3737 x LH93 RM#1 19569 H86
7890	P3737 x LH93 RM#1 19569 H86
7891	P3737 x LH93 RM#1 19569 H86
7892	P3737 x LH93 RM#1 19569 H86
7893	P3737 x LH93 RM#1 19569 H86
7894	P3737 x LH93 RM#1 19569 H86
7895	P3737 x LH93 RM#1 19569 H86
7896	P3737 x LH93 RM#1 19569 H86
7897	P3737 x LH93 RM#1 19569 H86
7898	P3737 x LH93 RM#1 19569 H86
7899	P3737 x LH93 RM#1 19569 H86
7900	P3737 x LH93 RM#1 19569 H86
7901	P3737 x LH93 RM#1 19569 H86
7902	P3737 x LH93 RM#1 19569 H86
7903	LH82 x LH93)(LH57 RM#1 19567 H86
7904	LH82 x LH93)(LH57 RM#1 19567 H86
7905	LH82 x LH93)(LH57 RM#1 19567 H86
7906	LH82 x LH93)(LH57 RM#1 19567 H86
7907	LH82 x LH93)(LH57 RM#1 19567 H86
7908	LH82 x LH93)(LH57 RM#1 19567 H86
7909	LH82 x LH93)(LH57 RM#1 19567 H86
7910	LH82 x LH93)(LH57 RM#1 19567 H86
7911	LH82 x LH93)(LH57 RM#1 19567 H86
7912	LH82 x LH93)(LH57 RM#1 19567 H86
7913	LH82 x LH93)(LH57 RM#1 19567 H86
7914	LH82 x LH93)(LH57 RM#1 19567 H86
7915	LH82 x LH93)(LH57 RM#1 19567 H86
7916	LH82 x LH93)(LH57 RM#1 19567 H86
Border	LHE136

RANGE 9 W-E

Border	LHE136
7917	LH82 x LH93)(LH57 RM#1 19567 H86
7918	LH82 x LH93)(LH57 RM#1 19567 H86
7919	LH82 x LH93)(LH57 RM#1 19567 H86
7920	LH82 x LH93)(LH57 RM#1 19567 H86
7921	LH82 x LH93)(LH57 RM#1 19567 H86
7922	LH82 x LH93)(LH57 RM#1 19567 H86
7923	LH57 x LH109 RM#1 19563 H86
7924	LH57 x LH109 RM#1 19563 H86
7925	LH57 x LH109 RM#1 19563 H86
7926	LH57 x LH109 RM#1 19563 H86
7927	LH57 x LH109 RM#1 19563 H86
7928	LH57 x LH109 RM#1 19563 H86
7929	LH57 x LH109 RM#1 19563 H86
7930	LH57 x LH109 RM#1 19563 H86
7931	LH57 x LH109 RM#1 19563 H86
7932	LH57 x LH109 RM#1 19563 H86
7933	LH57 x LH109 RM#1 19563 H86
7934	LH57 x LH109 RM#1 19563 H86
7935	LH57 x LH109 RM#1 19563 H86
7936	LH57 x LH109 RM#1 19563 H86
7937	LH57 x LH109 RM#1 19563 H86
7938	LH57 x LH109 RM#1 19563 H86
7939	LH57 x LH109 RM#1 19563 H86
7940	LH57 x LH109 RM#1 19563 H86
7941	LH57 x LH109 RM#1 19563 H86
7942	LH57 x LH109 RM#1 19563 H86
7943	LH57 x LH82 RM#1 19565 H86
7944	LH57 x LH82 RM#1 19565 H86
7945	LH57 x LH82 RM#1 19565 H86
7946	LH57 x LH82 RM#1 19565 H86
7947	LH57 x LH82 RM#1 19565 H86
7948	LH57 x LH82 RM#1 19565 H86
7949	LH57 x LH82 RM#1 19565 H86

HAWAII YOSHIDA

19549	LH58 x LH122 DE@5 17959-134-2-2-1 16248 I85 *2L	
19550	B73	
19551	LH58 x LH122 DE@5 17959-134-2-2-2 16248 I85 *2L	
19552	B73	
19553	LH58 x LH122 DE@5 17959-134-2-2-3 16248 I85 *2L	
19554	B73	
19555	LH58 x LH122 DE@5 17959-134-2-2-4 16248 I85 *2L	
19556	B73	
19557	B73	
19558	B73	
19559	B73	
19560	B73	
19561	B73	
19562	B73	
19563	LH57 x LH109	
19564	LH57 x LH109	
19565	LH57 x LH82	
19566	LH57 x LH82	
19567	LH82 x LH93)(LH57	
19568	LH82 x LH93)(LH57	
19569	P3737 x LH93	
19570	P3737 x LH93	
19571	LH54 x LH52	
19572	LH54 x LH52	
19573	P3803	
19574	P3737	
19575	LH52	
19576	LH52	*EM
19577	LH54	
19578	LH57	
19579	LH61	
19580	LH61	
19581	EJC-TE I84 7769-74	
19582	EJC-TE I84 7769-74	
19583	EJC-TE I84 7769-74	
19584	EJC-TE I84 7769-74	
19585	EJC-TE I84 7769-74	
19586	EJC-TE I84 7769-74	
19587	EJC-TE I84 7769-74	
19588	EJC-TE I84 7769-74	
19589	EJC-TE I84 7769-74	
19590	EJC-TE I84 7769-74	
19591	EJC-TE I84 7769-74	
19592	EJC-TE I84 7769-74	
19593	EJC-TE I84 7769-74	
19594	EJC-TE I84 7769-74	
19595	EJC-TE I84 7769-74	
19596	EJC-TE I84 7769-74	
19597	EJC-TE I84 7769-74	
19598	EJC-TE I84 7769-74	

Range 18 - E-W

19599	EJC-TE I84 7769-74	
19600	EJC-TE I84 7769-74	
19601	EJC-TE Vost 1985 ear-1	

34774	LH33	
34775	LH33	*EM
34776	LH38	
34777	LH39	
34778	LH40	
34779	LH47	
34780	LH49	
34781	LH51	
34782	LH52	*EM
34783	LH52	*2L
34784	LH53	
34785	LH54	*2L
34786	LH57	
34787	LH57	
34788	LH57	*EM
34789	LH57	*2L
34790	LH74	*EM
34791	LH74	*2L
34792	LH80	
34793	LH82	
34794	LH82	
34795	LH82	
34796	LH82	
34797	LH82	
34798	LH82	*EM
34799	LH82	*EM
34800	LH82	*2L
34801	LH90	
34802	LH90	*2L
34803	LH91	
34804	LH91	*EM
34805	LH92	
34806	LH93	
34807	LH93	
34808	LH93	
34809	LH93	
34810	LH93	
34811	LH93	*EM
34812	LH94	
34813	LH94	
34814	LH94	
34815	LH94	
34816	LH94	
34817	LH94	*EM
34818	LH98	
34819	LH98	*2L
34820	LH105	
34821	LH105	*EM
34822	LH106	*EM
34823	LH107	*2L
34824	LH109	
34825	LH117	
34826	LH119	
34827	LH122	
34828	LH123	
34829	LH124	
34830	LH126	
34831	LH130	
34832	LH132	
34833	LH132	
34834	LH134	
34835	LHE136	
34836	LHE136	
34837	LHE137	
34838	LH145	*2L
34839	LH146	*2L
34840	LH147	
34841	LH147	*EM
34842	LH147	*2L
34843	LH150	
34844	LH152	
34845	LH153	
34846	LH155	
34847	Ex841	
34848	A554Ht	
34849	A554Ht	*EM
34850	A619Ht	

Novelty Statement

Exhibit B

LH167 most closely resembles LH82, however, the most distinguishing differences are glume color and anther color. The glume color of LH167 is green with a purple ring at the base and the anther color is dark yellow. The glume color of LH82 is green with a brown margin and the anther color is pink.

The plant color of LH167 is also darker green in color. When using the Munsell Color Charts for Plant Tissues as a reference, LH167 would be classified as 5GY 4/4. LH82 would be classified as 5GY 4/6.

The cob color of LH167 is white, while the cob color of LH82 is red.

The husk color of LH167 at pollination time is light green with purple markings. The husk color of LH82 at pollination time is light green and the purple markings are absent.

FORM APPROVE . OMB NO. 40-R3712

FORM GR-470-28
(2-15-74)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Corn)

OBJECTIVE DESCRIPTION OF VARIETY

CORN *(ZEA MAYS)*

NAME OF APPLICANT(S)
Holden's Foundation Seeds, Inc.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
201 N. Maplewood Avenue
P.O. Box 839
Williamsburg, IA 52361

FOR OFFICIAL USE ONLY
PVPO NUMBER

VARIETY NAME OR TEMPORARY DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[2] 1 = SWEET 2 = DENT 3 = FLINT 4 = FLOUR 5 = POP 6 = ORNAMENTAL

2. REGION WHERE BEST ADAPTED IN THE U.S.A.:

[2] 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST
5 = SOUTHCENTRAL 6 = SOUTHWEST 7 = MOST REGIONS

3. MATURITY (In Region of Best Adaptability):

(Under "Comments" (pg. 3) state how heat units were calculated)

[7][7] DAYS FROM EMERGENCE TO 50% OF PLANTS IN SILK — [1][2][6][6] HEAT UNITS

[0][0] DAYS FROM 50% SILK TO OPTIMUM EDIBLE QUALITY — [0][0][0][0] HEAT UNITS

[0][0] DAYS FROM 50% SILK TO HARVEST AT 25% KERNEL MOISTURE — [0][0][0][0] HEAT UNITS

4. PLANT:

[1][5][9] CM. HEIGHT (To tassel tip)

[0][5][8] CM. EAR HEIGHT (To base of top ear)

[1][3] CM. LENGTH OF TOP EAR INTERNODE

Number of Tillers:

[1] 1 = NONE 2 = 1–2 3 = 2–3 4 = > 3

Number of Ears Per Stalk:

[2] 1 = SINGLE 2 = SLIGHT TWO-EAR TENDENCY
3 = STRONG TWO-EAR TENDENCY 4 = THREE-EAR TENDENCY

Cytoplasm Type:

[1] 1 = NORMAL 2 = "T" 3 = "S" 4 = "C" 5 = OTHER (Specify) _____

5. LEAF (Field Corn Inbred Examples Given):

Color:

[*] 1 = LIGHT GREEN (HY) 2 = MEDIUM GREEN (WF9) 3 = DARK GREEN (B14) 4 = VERY DARK GREEN (K166)

Angle from Stalk (Upper half):

[1] 1 = < 30° 2 = 30–60° 3 = > 60°

Sheath Pubscence:

[1] 1 = LIGHT (W22) 2 = MEDIUM (WF9)
3 = HEAVY (OH26)

Marginal Waves:

[2] 1 = NONE (HY) 2 = FEW (WF9) 3 = MANY (OH7L)

Longitudinal Creases:

[2] 1 = ABSENT (OH51) 2 = FEW (OH56A)
3 = MANY (PA11)

Width:

[0][9] CM. WIDEST POINT OF EAR NODE LEAF

Length:

[0][6][3] CM. EAR NODE LEAF

[1][0] NUMBER OF LEAVES PER MATURE PLANT

6. TASSEL:

[0][5] NUMBER OF LATERAL BRANCHES

Branch Angle from Central Spike:

[2] 1 = < 30° 2 = 30–40° 3 = > 45°

Peduncle Length:

[0][2] CM. FROM TOP LEAF TO BASAL BRANCHES

Pollen Shed:

[2] 1 = LIGHT (WF9) 2 = MEDIUM 3 = HEAVY(KY21)

[1*] Anther Color: 1 = YELLOW 2 = PINK 3 = RED 4 = PURPLE 5 = GREEN

[6] Glume Color: 6 = OTHER (Specify) green with purple ring at base

*dark

Pollen Restoration for Cytoplasms (0 = Not Tested, 1 = Partial, 2 = Good)

[0] "T" [0] "S" [0] "C" [0] OTHER (Specify Cytoplasm and degrees of restoration) _____

7. EAR (Husked Ear Data Except When Stated Otherwise):

[1][5] CM LENGTH [3][6] MM. MID-POINT DIAMETER [6][7] GM. WEIGHT

Kernel Rows:

[2] 1 = INDISTINCT 2 = DISTINCT [1][0] NUMBER

[1] 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = SPIRAL

Silk Color (Exposed at Silking Stage):

[1] 1 = GREEN 2 = PINK 3 = SALMON 4 = RED

Husk Color:

[1*] FRESH

[6] DRY

1 = LIGHT GREEN 2 = DARK GREEN 3 = PINK 4 = RED 5 = PURPLE 6 = BUFF

*with purple markings

Husk Extention: (Harvest Stage)

[1] 1 = SHORT (Ears Exposed) 2 = MEDIUM (Barely Covering Ear) 3 = LONG (8–10CM Beyond Ear Tip) 4 = VERY LONG (> 10 CM)

Husk Leaf:

[1] 1 = SHORT (< 8 CM) 2 = MEDIUM (8–15 CM) 3 = LONG (> 15 CM)

Shank:

[1][5] CM LONG [0][8] NO. OF INTERNODES

Position at Dry Husk Stage:

[1] 1 = UPRIGHT 2 = HORIZONTAL 3 = PENDENT

Taper:

[1] 1 = SLIGHT 2 = AVERAGE 3 = EXTREME

Drying Time (Unhusked Ear):

[2] 1 = SLOW 2 = AVERAGE 3 = FAST

8. KERNEL (Dried):

Size (From Ear Mid-Point):

[1][2] MM LONG [0][9] MM. WIDE [0][4] MM. THICK

Shape Grade (% Rounds)

[4] 1 = < 20 2 = 20–40 3 = 40–60 4 = 60–80 5 = > 8

8. KERNEL (Dried) :

[8] Pericarp Color: 1 = COLORLESS 2 = RED-WHITE 3 = TAN 4 = BRONZE
5 = BROWN 6 = LIGHT RED 7 = CHERRY RED
8 = VARIEGATED (Describe) bronze at pedicel turning colorless at crown

[1] Aleurone Color: 1 = HOMOZYGOUS 2 = SEGREGATING (Describe) _____

[1] 1 = WHITE 2 = PINK 3 = TAN 4 = BROWN 5 = BRONZE 6 = RED
7 = PURPLE 8 = PALE PURPLE 9 = VARIEGATED (Describe) _____

[3] Endosperm Color: 1 = WHITE 2 = PALE YELLOW 3 = YELLOW 4 = PINK-ORANGE 5 = WHITE CAP.

Endosperm Type:

[3] 1 = SWEET (su1) 2 = EXTRA SWEET (sh2) 3 = NORMAL STARCH 4 = HIGH AMYLOSE STARCH
5 = WAXY STARCH 6 = HIGH PROTEIN 7 = HIGH LYSINE 8 = OTHER (Specify) _____

[2][1] GM. WEIGHT /100 SEEDS (Unsized Sample)

9. COB:

[2][3] MM. DIAMETER AT MID-POINT

Strength:

[2] 1 = WEAK 2 = STRONG

Color:

[1] 1 = WHITE 2 = PINK 3 = RED 4 = BROWN
5 = VARIEGATED 6 OTHER (Specify) _____

10. DISEASE RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

[0]	STALK ROT (Diplodia)	[0]	STALK ROT (Fusarium)	[0]	STALK ROT (Gibberella)
[2]	NORTHERN LEAF BLIGHT H. Turcicum Race 1	[0]	SOUTHERN LEAF BLIGHT	[0]	SMUT
[0]	SOUTHERN RUST	[0]	CORN SMUT	[0]	BACTERIAL WILT
[0]	BACTERIAL LEAF BLIGHT	[0]	MAIZE DWARF MOSAIC	[0]	STUNT
[2]	OTHER (Specify) H. Carbonum Race 3				

11. INSECT RESISTANCT (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

[0]	CORNBORER	[0]	EARWORM	[0]	SAPBEETLE	[ ]	APHID
[0]	ROOTWORM (Northern)	[0]	ROOTWORM (Western)				
[0]	ROOTWORM (Southern)	[0]	OTHER (Specify) _____				

12. VARIETIES MOST CLOSELY RESEMBLING THAT SUBMITTED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
Maturity	LH82	Kernel Type	LH82
Plant Type	LH82	Quality (Edible)	
Ear Type	LH57	Usage	LH82

REFERENCES:

U.S. Department Agriculture. Yearbook 1937.

Corn: Culture, Processing, Products. 1970 Avi Publishing Company, Westport, Connecticut. (Numerous (Authors)

Emerson, R.A., G.W. Beadle, and A.C. Fraser. A Summary of Linkage Studies in Maize.Cornell A.E.S., Mem. 180. 1935.

The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wisconsin.

Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S. Bul. 831. 1959.

Butler, D.R. 1954 – A System for the Classification of Corn Inbred Lines – PhD. Thesis, Ohio State University.

COMMENTS:

$$GDD = \frac{Tmax + Tmin}{2} - 50°F$$

$Tmax \leq 86°F$

$Tmin \geq 50°F$

Additional Description of the Inbred

Exhibit D

LH167 is a medium season field corn inbred. LH167 flowers slightly earlier than LH82. LH167 appears to be best adapted to the central and northern regions of the corn belt. LH167 appears to have better disease tolerance to Northern Leaf Blight Race 1 and H. Carbonum Race 3 than LH82.

When LH167 is crossed with members of the stiff-stalk family, the resulting hybrids are about 1% drier, have similar stalk quality, superior root strength, and are better yielding than comparable hybrids containing LH82.

Statement of the Basis of Applicant Ownership

Exhibit E

Holden's Foundation Seeds, Inc., Williamsburg, Iowa, is the sole owner and breeder of the LH167 corn inbred line for which it solicits a certificate of protection.

No. 8600129

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Holden's Foundation Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN

'LH57'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D. C. this 30th day of January in the year of our Lord one thousand nine hundred and eighty-seven.

Attest:

Kenneth B. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Richard E. Lyng
Secretary of Agriculture